

An Essay
on
Vaccination,
Respectfully Submitted to the
Faculty
of the
Homopathic Medical College
of
Pennsylvania,

on the first day of February
one thousand eight hundred and fifty seven.

By
Walter M. Williamson.
of
Philadelphia
Penn^a.

Before proceeding immediately with the object of this Thesis, It will be necessary to say somewhat upon Variola or Small pox, whereby we may see the great boon in the introduction of Vaccination. For we must measure the value of remedial means, by the amount of benefit we derive from those means.

Variola or Small pox.

The origin of this loathsome disease is shrouded in mist and obscurity, and this darkness is made still deeper, by the desire of the earliest writers upon the subject, wishing to date its introduction further back

than they could substantiate.

Rhazes, an Arabian physician who flourished about the tenth century, appears to be the author to whom we are indebted for the first description of Small pox, Although some four hundred years before Rhazes, we find an old manuscript in one of the libraries at Leyden, which says, that both small pox and measles made their appearance in Arabia in the year 572. But from what is found in this paper, one would suppose that small pox had existed in other parts before this time, and this was simply the year in which it was first seen

There
was
found
in

in Arabia. The historian Gibbon inform us, that small pox broke out in the Christian army at the siege of Mecca (562), and so extensive were its ravages, as to cause the overthrow of the army.

The above are the only references we have of the disease prior to the writings of Rhazes. As we find no mention of small pox, by either Celsus or Galen, it is to be supposed that they were not acquainted with it. For in their works, we find almost all that was known of medicine or disease before them, Rhazes, says that small pox was introduced into Arabia, from Ethiopia. But

4

It did not become general until
the close of the Twelfth century,
when the armies of the Crusaders
were disbanded, and they who
had contracted the disease in
the East, carried it with them
to their homes, and for hundreds
of years, it rode paramount
to medical skill over the conti-
nent of Europe. It has been
estimated that in England Ire-
land Scotland and Wales alone,
forty thousand were annually
destroyed, Washington Irving tells
us, that in Twenty five years
after the discovery of this continent,
one half the population died of
those provinces into which it was

introduced, in Mexico three millions
and a half died in a single epi-
demic, ~~an called~~ ²

We can form but little
idea at this day, what the disease
was, And to what is the con-
quering of this dread monster
attributable? Vaccination!! This
is the champion, upon whose brow
the laurels must fall,

For although
inoculation did precede vaccina-
tion, Inoculation did only ame-
liorate, It was of vast importance
to suffering and dying man.

Why was it not a prophylactic
or preventative, instead of simply
a moderator? Because it was not

Homoeopathic. And in this do many of the regular practitioners of medicine (as they are called) err. They say that inoculation is Homoeopathic to small pox. If they would but stop to think, and not go on in their blind fanaticism they would see that inoculation is almost making confusion worse comfound. Homoeopathy is not same to same, but similar. Now inoculation is the same disease. But vaccination is a similar one.

It is not certain where or when Inoculation had its origin. It has been ascribed to be of Circassian origin. They used it to preserve the beauty of

7

their women. It was known and
practiced in Constantinople about
the end of the Sixteenth and be-
ginning of the Seventeenth centu-
ries. The first account we have
of its being performed in England
was in the year 1721, and shortly
afterwards was introduced into
this country.

The operation was
performed in various ways,
some took the lymph from
the small pox pustule when
~~they were~~^{it was} complete, and inserted it
beneath the cuticle of the
left arm, near the insertion of the
Deltoid muscle, by means
of a lancet. Another plan was

to draw a piece of white silk
moistened with warm water, through
the Hustle when perfect, and
draw this through the skin
of the patient, at the points
mentioned, ~~say or the other day~~

Much benefit was
derived from Inoculation, for
the mortality of Inoculated Small
pox was much less, than it was
when taken in the usual way.
Still there are some objections
to it. But before we mention these,
we shall take a hasty glance
at its benefits, at the same time
mentioning a few of the advan-
tages of Vaccination, over Inoculation.

The period of in-

curation of small pox, is twelve days, while that of inoculated small pox is eight days; by this means you could prevent small pox from contagion, by inoculating a person a day or two after being exposed to the contagion,

Small pox is mild in this form, but it is nevertheless contagious, and will leave pusts upon the surface, more or less numerous, according to the severity of the attack,

It has still other advantages, You can choose the season of the year,

Small pox is most prevalent during the winter, Nor

you can inoculate during the Spring or Summer, and then you have not to contend against the strong epidemic influenza; for during epidemics, Diseases are most fatal,

As has been promised, small pox can be contracted from a person who has been inoculated with it. There is also another objection; It has to be repeated often, and one in fifty die, whilst by vaccination none die. While we say this, there is a single case on record, where in Pulaski County Illinois a physician was convicted of manslaughter,

and sentenced to two years and a half in the county prison, for killing a person by vaccination.

Having given an account of Small pox and its ravages, before the introduction of inoculation, and some reasons why, it should be used as the least of two evils, we will now consider vaccination, its origin &c, We will also attempt to point out briefly that vaccination is a sovereign, only, on account of its Homoeopathicity to Small pox, And in its obeying the law laid down by Hahnemann, in the words, "Similia Similibus curantur".

We have no reliable evidence when a pustular disease first made its appearance upon the udder of the cow. But we find an opinion prevalent (as far back as the beginning of the 18th Century,) among the milkers in dairies, (in England,) is that there was a pustular disease which made its appearance upon the udder and teats of the cow, and when they (the milkers) contracted this disease they were free from attacks of small pox. This disease was known as cow pox.

Dr Edward Jenner
a student of Medicine and a

great lover of natural History,
Induced by a magnanimous
spirit of inquiry; Turned his
attention to this fact, and
frequently conversed with his
Preceptor Jno Hunter upon the
subject, but never obtained
any very favorable reply.

About the year 1768
he commenced investigating
the cow pox, During this inves-
tigation he found the cow was
subject to two Kind of pustules
upon the udder and teats, One
of frequent the other of rather
rare occurrence, That of rare
occurrence, showing itself upon
the teats of the cow, in irregular

pustules, At first of a livid or pale bluish color surrounded by an erysipelatous inflammation, and sometimes run into phagedenic ulcers, The appearance of the pustules is often connected with general disorder in the cow, The secretion of milk is suspended, Ulcers appear upon the tongue, there is often cough and the hair of the animal falls off.

He also observed that this affection was enzootic, occurring where herds of the animals were kept, The disease was sometimes very fatal, Fifteen to twenty pr. ct. of those attacked dying.

The other form was found

generally in the spring, when the cows were first turned out to pasture, or when suckling the calf. This form had no bluish tint, the vesicles formed and dessicated quickly, had no erysipelas ⁱⁿ inflammation connected with it, neither did it produce any general disorder in the cow. The former he termed pure cowpox, the latter spurious.

The cow pox in the milkers first made its appearance upon the hand or wrist, in an inflamed spot, which ran on to suppuration.

The pustules assumed a circular form, of a bluish color

with the edges slightly everted,
The appearance of the pustules
was followed by headache, fever,
vomiting, and sometimes delirium,
there was no general eruption on
the surface of the body following
these symptoms,

We find some
authors disputing the fact that
small pox proceeded from the cow
to the human subject. They main-
tain that the disorder called
grease in the horse, was the
origin of the disease, and that
it was transmitted by the jennet
to the cow, (the jennet sometimes
assisted in milking).

There is still

another doctrine abroad in
the world among scientific
men, They holding the belief,
that it originated in man,
and from him transmitted to the
horse and cow, Being so modified
in passing through the animals'
systems, as to lose its identity,
but retain its similarity. But
be this as it may, it was to the
disease in the cow that the
mind of the immortal Jenner
was called, to and, to which
he directed his well advised
investigations.

As every practitioner
wishes to be different from every
one else, we have many opinions

74

as to what to vaccinate with, when, where, and how to vaccinate, Upon the questions when and where, most agree, The time from the third to the ninth month, The place where Upon the left arm just above the insertion of the Deltoid muscle, This is simply for the sake of uniformity.

The greatest diversity of opinion, is what to use and how to use it, Dr Jenner used at first the cow pox itself, afterwards lymph taken from a vaccine pustule from the fifth to the eighth day, This he placed upon the point of a lancet and inserted it into the place

mentioned. But now the plan generally adopted, is to take a small portion of a scab from a healthy child, mix it with a little cold water, until it is about the consistency of cream, and insert this into the arm.

When vaccination has been successfully performed, upon a healthy child, the incision may be felt a little elevated upon the second day. On the fifth day a vesicle is formed having an elevated edge and depressed centre, on the eighth day it appears distended with a clear lymph.

The vesicle on this day is at its greatest perfection, resembling

very much both in form and color
the small pox pustule. Its margin
is firm and shiny with a round
and elevated edge. At the close
of the eighth day an area
begins to form around the pustule,
this increases to the tenth
day, and is then from one to
three inches in diameter. There
is now considerable hardness with
swelling of the subjacent cellular
membrane. This begins to subside
on the eleventh day. The scab
gradually dries up and falls
off about the seventeenth day.

There is seldom any constitu-
tional effects which should
cause alarm. The system usually

2.

sympathizes about the eighth day,
The child (if it be one) is fretful,
skin hot, bowels occasionally are
disordered, these symptoms subside
in a day or two with out any
remedial means, It was recommended
by Hahnemann to give a dose of
Sulphur the Thirtieth attenuation
upon the eighth day. It is done
as a test whether there be any scor-
bitic tendency in the patient, if
there be any (the system being in
a vascular state of excitement),
it will show itself upon the sur-
face, and prove the virus unfit
for further use, At the same
time allow the latent disease
to be treated, and if judiciously

managed, the benefits will be
felt in all future life.

In case the vaccination does not take, either
from the matter being spurious
or other causes, The spot becomes
almost immediately the seat
of inflammation, A scab is formed
which is very friable and soon
falls off, if there be any emetic-
tional symptoms they come on
and subside before the sixth
day. This scab if not broken or
lost, will be found wanting,
the hard and deep red spot
in the centre, A characteristic
of the true and genuine virus.

In regard to the subject

of Re-vaccination much has been written on both sides. It is however pretty well established, that it is in many cases necessary to revaccinate. Upon the ground that after a lapse of several years, vaccination may lose in a measure its protective power. There is a case in which revaccination is considered by almost all ~~all~~^t inad-
missible, viz. In ladies approach-
ing puberty or just before marriage. We shall not enlarge upon this point, But will simply allude to the fact, That pregnant females when attacked with small pox have their lives very much endan-
gered, and in a large majority

22
of cases. Abortion or premature labour is brought on, ~~thus~~ being These dangerous and sometimes even fatal to the offspring.

If what has been said of Small pox being dangerous to pregnant females, And vaccination acting as we have asserted, only upon its Homoeopathicity. It is evident that neither vaccination nor revaccination can be performed with safety to both mother and child during that period. At all other times we believe; with out an exception it can be administered with impunity.

resorted to